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PEOPLE'S REPUBLIC OF CHINA SCIENTIFIC ABSTRACTS

No. 198

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ACTA BIOCHEMICA ET BIOPHYSICA SINICA

AUTHOR: None

ORG: Section of Biochemistry, Shanghai Cancer Institute

TITLE: "The Biological Action of Exogenous Cytoplasmic RNA's of Animal Liver on Cultured Human Hepatocarcinoma Cells and Their Distribution In Vivo"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 237-248

TEXT OF ENGLISH ABSTRACT: The mRNA-enriched cytoplasmic RNA's were prepared from normal animal liver. As revealed by polyacrylamide gel electrophoresis, the preparation contains the components corresponding to tRNA, rRNA, and 7~18S heterogeneous RNA's.

Human hepatocarcinoma cells (7402 line) were incubated with ^{14}C -leucine and cytoplasmic RNA's from mouse liver. The synthesis of human serum albumin of RNA-treated 7402 cells were increased 3.6 times as compared with the untreated cells, and a remarkable synthesis of mouse serum albumin was also induced in these RNA-treated human cancer cells. The results indicate that the RNA preparation may possibly include both the template activity of the donor cells and the regulatory activity

[continuation of SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO No 3, Sep 77 pp 237-248]

for gene expression of the host cells.

^{125}I (or ^{131}I) labeled RNA's were injected into normal and tumor-bearing mice. The distribution of labeled RNA's was examined by whole body scintillation scanning, specific radioactivity of various organs, and autoradiography. The labeled RNA's were preferentially distributed in liver and tumor, while the labeled nucleotides injected at the same dosage were relatively evenly distributed in various organs.

The potential uses of exogenous RNA's of animal liver in the treatment and prophylaxis of human liver cancer are discussed.

AUTHOR: LI Yu-tse [2621 2589 0463]
WEI Chin [5898 3866]
WANG Hsiu-fang [3076 4423 5364]

ORG: All of the Institute of Plant Physiology, Chinese Academy of Sciences

TITLE: "Significance of High Energy State in Photophosphorylation--Comparison of Initial Rate of Formation of High Energy State and of Photophosphorylation"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 249-257

TEXT OF ENGLISH ABSTRACT: Following up our earlier investigations on the high energy intermediate state (\sim) of photophosphorylation (PSP), this paper concentrates on the analysis of the relation between the initial rates of the formation of \sim and those of PSP. The results show that in short illumination times (< 1 second) the rates of \sim formation (pH 6) and of PSP (pH 7.8) are similar, and have the same saturating light intensity. Both processes are affected by temperature and respond similarly. These results indicate that this \sim may indeed be a direct intermediary step in the reaction path of PSP. This \sim (measured between 10^{-4} to 1 sec), thus behaves differently from the Z^* determined with longer illumination times (1~15 sec). The relationship between these high energy intermediate states is discussed.

AUTHOR: None

ORG: Department of Biochemistry, Shanghai Medical College No 2

TITLE: "Purification of Secretory Immunoglobulin A"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 259-268

TEXT OF ENGLISH ABSTRACT: A method that had been used in our laboratory for the isolation and purification of S-IgA from human colostrum and which was a modification of Newcomb's method (1968), is herein described. The improvements made and problems associated with this procedure are discussed. More detailed work is needed.

AUTHOR: SHEN Szu-hsiang [3088 1835 4382]
LI Shih-yun [2621 1102 0061]
HSU Yu-ch'eng [1776 2589 2052]

ORG: All of the Shanghai Institute of Biochemistry, Chinese Academy of Sciences

TITLE: "The DNA of Nuclear Polyhedrosis Virus of the Silkworm"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 269-276

TEXT OF ENGLISH ABSTRACT: Viral DNA was isolated from virus particles of nuclear polyhedrosis virus of the silkworm, Bombyx mori, by phenol, or pH 10 buffer. Different results were obtained. The DNA extracted with phenol has a sedimentation coefficient of 28.5S, giving the appearance of twisted linear molecules under the electron microscope with a contour length of about 8μ , the longest above 10μ . The sample revealed only one component when analyzed by polyacrylamide gel electrophoresis, sepharose column chromatography and ultracentrifugation in a linear sucrose density gradient. The DNA extracted with pH 10 buffer has a sedimentation coefficient of 4.7S, its mobility in polyacrylamide gel electrophoresis was greater than that of the one extracted with phenol, exhibiting a broad band in the gel. Sepharose column chromatography also indicated that the molecules were smaller than those obtained by phenol extraction. The results are discussed.

AUTHOR: WANG Pao-han [3769 1405 5060]

ORG: Institute of Biophysics, Chinese Academy of Sciences, Peking

TITLE: "Studies on the Binding of Ligands to Oligomeric Proteins--Statistical Mechanics Model. I. Homotropic Effect"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 277-290

TEXT OF ENGLISH ABSTRACT: In this paper the one-dimensional Ising model has been generalized for the investigation of the ligand binding to oligomeric proteins. Unlike the single spin variable Ising model, here the state of the particles (protein subunits) is described by a pair of spin variables (σ, μ), and a 4×4 matrix is constructed. For homotropic interaction, the saturation curve, molecular conformation vs. ligand curve and certain correlation functions, etc., are obtained by means of pure matrix algebra. The well-known concerted and sequence models, as particular examples, have been included in this statistical mechanics model, which is not restricted to the identity, non-identity or the number of subunits. Finally, the positive and negative cooperativities are discussed.

AUTHOR: WANG Pao-han [3769 1405 5060]

ORG: Institute of Biophysics, Chinese Academy of Sciences, Peking

TITLE: "Studies on the Binding of Ligands to Oligomeric Proteins--Statistical Mechanics Model. II. Heterotropic Effect"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 291-304

TEXT OF ENGLISH ABSTRACT: The model given in paper (I) is further generalized to include the case that spin variables (σ, μ) may take any integer or half-integer values respectively. This case corresponds to the heterotropic interaction. Particularly, the interaction between substrate and oligomeric protein in the presence of inhibitor or activator is treated. The saturation curve is derived and the generalized Hill equations are obtained. The method used is not restricted to the conformational number of the subunits or to the species of ligand.

AUTHOR: None

ORG: Mössbauer Spectroscopy Study Group and Department of Biochemistry, Nanking University

TITLE: "Mössbauer Spectroscopy and Its Application to Biological Investigation"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 3, Sep 77 pp 305-320

TEXT OF ENGLISH ABSTRACT: The fundamental principles of Mössbauer spectroscopy have been briefly summarized. Its applications in biology are discussed and an installation for Mössbauer spectroscopy is described.

AUTHOR: None

ORG: Cancer Research Group, Shanghai Institute of Biochemistry

TITLE: "Progress in Alpha Fetoprotein Research"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 321-337

TEXT OF ENGLISH ABSTRACT: A review of current developments in research concerning the chemico-physical properties, biosynthesis and physiological function of alpha-fetoprotein is given. Certain related problems are discussed.

AUTHOR: None

ORG: Department of Biochemistry, Shanghai Medical College No 1

TITLE: "Studies on the Fetal Antigen of Cell Plasma Membrane of Human Hepatoma Cells"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 339-346

TEXT OF ENGLISH ABSTRACT: A new oncofetal antigen on the plasma membrane of human hepatoma cells has been detected and partially purified. Human hepatoma tissues obtained from partial hepatectomy were used to prepare plasma membrane by sucrose density gradient centrifugation. The antiserum to this plasma membrane was absorbed by normal liver powder prepared from the normal portion of the liver of the same patient. This absorbed antiserum gave a positive reaction with the soluble products of the hepatoma cell plasma membrane in double immunodiffusion and counter-current immunoelectrophoresis, but a negative reaction with those of the normal liver cell plasma membrane. With the immunofluorescent method, it is demonstrated that this absorbed antiserum reacts specifically with hepatoma cells and the 7402 cell line (a human hepatoma cell culture line). It may be surmised therefore that there is an antigen on the plasma membrane of the hepatoma cells that is absent from normal liver cells. Further studies indicated this membranous antigen to be of the onco-fetal type. The plasma membrane of human embryonic liver (3~4 months old) also

[continuation of SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO No 4, Dec 77
pp 339-346]

possesses this antigen. We tried to purify this antigen from embryonic liver by means of immunoaffinity chromatography. A protein eluted from the column with the sedimentation coefficient of 0.33~0.45 exhibits specific affinity for antihepatoma serum.

AUTHOR: None

ORG: Shanghai Institute of Biological Products and Cancer Research Group, Military Medical University No 2

TITLE: "The Application of Horseradish Peroxidase-Labeled Antibody to Immune Localization. I. Method for the Localization of HBsAg in Liver Tissue Under Light Microscopy"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 347-352

TEXT OF ENGLISH ABSTRACT: A method for the localization of HBsAg in liver tissue by means of horseradish peroxidase-labeled antibody (indirect method) under light microscopy is described. It is highly specific and reproducible.

AUTHOR: None

ORG: Cancer Research Group, Military Medical University No 2 and Shanghai Institute of Biological Products

TITLE: "The Application of Horseradish Peroxidase-Labeled Antibody to Immune Localization. II. Method for Localization of HBsAg in Hepatocytes Under Electron Microscopy"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 353-356

TEXT OF ENGLISH ABSTRACT: A method for the localization of HBsAg in hepatocytes by means of horseradish peroxidase-labeled antibody (indirect method) at electron microscopic level is described. Some problems involved are discussed.

The ultrathin sections for electron microscopic examination may be prepared either after re-embedding of a thick section used in light microscopic examination, in which HBsAg was localized immunocytochemically with horseradish peroxidase-labeled antibody, or by staining immunocytochemically with horseradish peroxidase-labeled antibody directly on ultrathin section.

The distribution and form of HBsAg in the HBsAg positive hepatocyte has been examined

[continuation of SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO No 4, Dec 77 pp 353-356]

preliminarily, using horseradish peroxidase-labeled antibody under electron microscopy.

Under electron microscopic examination there are some deposits of HBsAg with enzyme-labeled antibody, dispersed in the cytoplasm or the expanded cisternae of the endoplasmic reticulum of some hepatocytes which were verified light microscopically to be HBsAg negative. Electron microscopic examination gives more significant information.

AUTHOR: YANG Ch'in-chao [2799 2953 3564]
HSU K'o [1776 4430]

ORG: Both of the Shanghai Institute of Physiology

TITLE: "Studies on Neurotoxic Components in the Venom of Aqkistrodon Halys (Pallas).
III. Sites of the Blocking Action of the Venom on the Neuromuscular Junction"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET
BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 357-362

TEXT OF ENGLISH ABSTRACT: In chick biventer cervicis nerve-muscle preparations about 50% of acetylcholine sensitivity has been found to remain after the total failure of neuromuscular transmission caused by A. halys venom treatment, suggesting that the venom may have both pre- and post-synaptic action.

Experiments on rat phrenic-diaphragm preparations showed that the venom could reduce substantially the acetylcholine potentials produced by iontophoretic method. The frequency of the miniature end-plate potential and the quantal content of the end-plate potential tended to decrease progressively with the higher concentration (200 $\mu\text{g/ml}$) of venom; however, the decline in both processes was preceded by an initial spurt, if the concentration of the venom was lower (40~100 $\mu\text{g/ml}$). Furthermore, a lower Ca or higher Mg concentration significantly delayed the neuromuscular

[continuation of SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO No 4, Dec 77
pp 357-362]

blocking action of the venom. It is therefore concluded that the blocking action of the A. halys venom is exerted only postsynaptically, but also presynaptically.

On the basis of the above experimental results further work on the isolation of the presynaptic toxin from neurotoxic components of A. halys venom has been accomplished. Detailed data will be published elsewhere.

AUTHOR: LU I-hsin [7120 0110 0207]
LI Ti-yuan [2621 6611 0337]
CH'EN Hsien-miao [7115 6343 1181]
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ORG: All of the Shanghai Research Institute of Hypertension

TITLE: "The Preparation of High-Affinity Anti-Angiotensin II Antiserum--The Preparation of Five Coupled Immunogens and Comparison of Their Immunological Potency"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 363-376

TEXT OF ENGLISH ABSTRACT: There is much need for specific and high-affinity antisera to angiotensin II (AT II) for the radioimmunoassay of AT II concentration in human peripheral blood. Five coupled immunogens were prepared by using different carriers and methods of coupling to render AT II amide (AT IIa) antigenic. They are:

1. AT IIa absorption to polyvinylpyrrolidone.
2. Condensation of AT IIa with rabbit serum albumin by carbodiimide reagent.
3. Conjugation of AT IIa with bovine serum albumin (BSA) via glutaric dialdehyde (GDA).
4. Conjugation of AT IIa with poly-L-lysine via GDA.
5. Condensation of AT IIa with succinylated poly-L-lysine (PL-Succ) by carbodiimide reagent.

[continuation of SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO No 4, Dec 77 pp 363-376]

Groups of rabbits were immunized by multiple-site intradermal injection or through multiple routes. The potency of anti-AT II of the various antisera was detected and followed by biological assay, passive hemagglutination test and RIA. The affinity constants (K_a) of these antisera to AT IIa were also determined by Scatchard plotting using RIA.

Among groups, different effects were shown by statistical analysis. The BSA-GDA-AT IIa and the PL-succ-AT IIa were shown to be highly effective. Certain antisera, with K_a values of 10^{10} l/mol and suitable for use in RIA, have been obtained 3~5 months after immunization. One of these has been successfully employed in a specific and sensitive RIA for the direct measurement of small concentrations of AT IIa in human peripheral blood.

In connection with our experiments relating to the preparations of immunogens, the methods of detecting antibody and the factors affecting the qualities of antisera were compared and discussed. Our results, as compared with most other published reports, offer some distinct advantages.

AUTHOR: None

ORG: Air Pollution Measurement Group, Department of Optics, Fudan University and Photosynthesis Pigment Research Group, Shanghai Institute of Plant Physiology

TITLE: "Preliminary Study on the Use of Chlorophyll d As Q-Switch of Ruby Laser and As Laser Generator"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 377-382

TEXT OF ENGLISH ABSTRACT: Chlorophyll d was used as Q-switch for ruby laser with good results. The influences of temperature, concentration and impurities of chlorophyll d solution on its functioning as Q-switch are described.

Under proper pumping conditions chlorophyll d may be used as a laser generator. The emission wavelength of chlorophyll d and its power output have been determined, $\lambda = 7183 \text{ \AA}$, $P > 1.4 \text{ MW}$.

The method of preparation and purification of chlorophyll d is briefly described.

AUTHOR: SU Liao-yuan [5685 3598 0626]
T'AO Ming-shan [7118 2494 1472]

ORG: Both of Soochow Medical College, Soochow

TITLE: "A Method of Determining Small Quantities of Blood Lymphocyte Transformation By the Liquid Scintillation Counter"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4; Dec 77 pp 383-388

TEXT OF ENGLISH ABSTRACT: 0.05 ml of blood was taken by finger tip puncture and the whole blood was incubated for 94 hours at 37°C. Sixteen hours before the cells are harvested, $0.6 \mu\text{C } ^3\text{H}$ -thymidine was then added to each of the cultures. At the end of the culture period, radioactivity outside the cell in the culture was removed. Then trichloroacetic acid was employed to obtain DNA, the ^3H -thymidine radioactivity of which was determined by liquid scintillation counting. The radioactivity represented the lymphocyte transformation.

One hundred twenty-five tests (118 persons) were carried out. The average normal value of lymphocyte transformation was determined. The lymphocyte transformation of some hemopoietic and tumor patients exhibited definite lowering. It was also found that ionizing radiation affected lymphocyte transformation.

AUTHOR: None

ORG: Hospital Laboratory, Kiangsi Traditional Chinese Medical College, Nanchang

TITLE: "An Improved Acetate Cellulose Membrane Method for Lipoprotein Electrophoresis"

SOURCE: Shanghai SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI HSUEH-PAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 4, Dec 77 pp 389-393

TEXT OF ENGLISH ABSTRACT: This paper describes an improvement on the acetate cellulose membrane method for lipoprotein electrophoresis as follows:

1. Ozonization with ultraviolet rays;
2. Fixing with 5% trichloroacetic acid and immersion in 70% methanol after electrophoresis.

It is possible to increase the differential rate of each lipoprotein zone with the method, which has been applied in the classification of hyperlipoproteinemia and clinical assessment of therapeutic effects with comparatively satisfactory results.

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PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS

AUTHOR: None

ORG: Cytology Research Group, Third Office, Shanghai Institute of Experimental Biology

TITLE: "Analysis of Chromosome Composition of Calf Thymus"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 6-8

ABSTRACT: Thymus was taken from newly killed calves, supplied by Shanghai Municipal Dairy Company, two-three hours before the experiment. Chromosomes were isolated according to the improved Artman and Roth method (1971) for quantitative determination of DNA, RNA, and proteins. The ratio of DNA, protein, histone, NHC protein, and RNA was found to be 1 : 1.82 : 1.23 : 0.59 : 0.043. In a table, these results are compared with those of Shih and Bonner (1969.) For this experiment, citric acid was used in the isolation of cell nucleus. Perhaps, chelated with Mg^{2+} , the citric acid suppressed the nuclease activity and thus reduced the RNA loss. Further research awaits to clarify the nature and the function of this RNA.

This paper was received for publication on 5 January 1977.

AUTHOR: None

ORG: Cytology Research Group, Third Office, Shanghai Institute of Experimental Biology

TITLE: "Extraction and Analysis of Calf Thymus Deoxyribonucleic Acid"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 3-6

ABSTRACT: Pure DNA, with its certain natural characteristics preserved, is needed in biochemical work. Through several attempts and experiments, a procedure for extracting calf thymus DNA was established, and the same procedure was also adopted for extracting mice liver DNA. The DNA thus prepared was found to have a very low level of contamination by proteins and RNA. The melting point and alkaline ratio were found to confirm with calf thymus DNA characters reported in related literatures. Results of other forms of analyses indicate that the product belongs largely to large molecule DNA, not excluding the existence of a small quantity of short chain DNA molecules. In this form, certain characteristics of natural DNA are preserved.

This paper was received for publication on 5 January 1977.

AUTHOR: None

ORG: Cytology Research Group, Third Office, Shanghai Institute of Experimental Biology

TITLE: "Electron Microscopic Observation of Calf Thymus Chromosomes"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 8-11

ABSTRACT: Kleinschmidt's one-step method, Artman and Roth biochemical method with 0.01M Tris-HCL, and the biochemical extracting method with heavy distilled water were used to isolate chromosomes of calf thymus for electron microscopic observation. Through analyses and observation of a large quantity of specimens, the chromosomes of inter-stage nucleus of calf thymus were observed to be composed of inter-joined segments of chromosome fibers of diameters of about 100-2,000 Å. According to the electron density, the diameter, and the interconversion condition, the fibers may at least be divided into six grades, with diameters, general of 100, 250, 500, 1,000, 1,500, and 2,200 Å respectively. Calf thymus chromosomes isolated from the aforementioned three different methods were observed to be basically identical.

This paper was received for publication on 11 April 1977.

This authors wish to thank members of the Electron Microscope Group of the Fourth Office of the institute for their assistance.

AUTHOR: None

ORG: Cytology Research Group, the Third Office, Shanghai Institute of Experimental Biology

TITLE: "Preliminary Study of Re-combined Calf Thymus Nuclear Histone"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 11-15

ABSTRACT: Investigation into the interaction between DNA and components of histone and the physical, chemical, and biological characteristics of the compound of the two is an important aspect of studying the structure and function of chromosomes. The chief obstacle to the study is to find the best method to prepare the DNA-histone compound. When the two are combined under low salinity condition, the solubility of the compound is very poor. The authors mixed DNA and histone under high salinity condition first; the salinity was then gradually reduced through gradient dialysis. The resultant compound was closer to natural chromosome. In this manner, calf thymus DNA was re-combined with calf thymus total histone in different ratios for photo-density determination, activity determination, heat variable melting temperature determination, and electron microscopic observation. Experimental results are reported.

This paper was received for publication on 11 April 1977.

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ORG: All of Hopei Institute of Radiological Medicine, and Radiology Teaching and Research Group, Hopei University of New Medicine

TITLE: "Observation of Satellite Nuclei of Lymphoid Cells in Peripheral Blood of Small White Mice After Irradiation With γ -Ray"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 15-18

ABSTRACT: Eighty white small mice, supplied by the Animal Farm of Hua-peï Pharmaceutical Plant, weighing 20-25 g each, half males and half females, were divided into four groups for this experiment. Three groups were irradiated once with gamma radiation in doses of 80, 400, 800 roentgen; the fourth group served as the control, receiving no radiation. The radiation source was a ^{60}Co cobalt treatment machine. Blood was withdrawn from the tail vein of the mice on the first, third, and fifth day after irradiation to make smears, to observe the rate of appearance of satellite nuclei, which were defined as nuclei observed in the cytoplasm, measuring less than one fourth the size of the major nucleus. A linear relationship between the rate of appearance of satellite nuclei and the radiation dosage was observed. Photos of the observed satellite nuclei are included.

This paper was received for publication on 5 June 1977.

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ORG: Both of Hopei Institute of Radiological Medicine, Radiology Teaching and Research Group of Hopei University of New Medicine

TITLE: "Fluorescent Cells Dosage Count"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 18-20

ABSTRACT: This paper investigates the relationship between the ratio of red and yellow fluorescent cells and radiation dosage, following 100-705 roentgen of ^{60}Co γ ray irradiation. One hundred small white mice, divided into ten groups, were used for ultraviolet microscopic observation to determine the ratio between red, yellow, and green fluorescent cells in every one hundred white cells. A linear relationship was discovered. The rise of the ratio between the red and the yellow fluorescent cells may, therefore, be used as one of the diagnostic bases for early stage acute radiation injury.

This paper was received for publication on 15 June 1977.

AUTHOR: None

ORG: Technology Group, Assembly Machine Shop, Peking Analyzer Instrument Plant

TITLE: "GZS-01 Type Ultraviolet Absorption Analyzer"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 21-23

ABSTRACT: The GZS-01 type ultraviolet absorption analyzer had been successfully made by the group. After several months of experimental application, in October 1976, it was certified by related units that its major property indices meet the requirements of the design. It can be used to determine the existence of 254 millimicron (m μ) light absorbing substance in a continuously flowing fluid. The work theory, the applicable limits, major technical indices, major component parts, of this instrument are described. This paper was received for publication on 14 April 1977.

AUTHOR: CH'EN Tso-i /7115 0155 0034/

ORG: Shanghai Institute of Biochemistry, Chinese Academy of Sciences

TITLE: "MLO--Mycoplasma-like Organisms, a New Type of Pathogens, Discovered in Plant Yellowing Diseases"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN /PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS/ in Chinese No 5, Nov 77 pp 24-30

ABSTRACT: MLO was first discovered from diseased mulberries in Japan in 1967. In 1968, research studies on the Aster yellow disease of onions, tobacco, potato, sweet potato, etc. in France and the United States also disclosed the existence of MLO. Since then, MLO has also been identified in corn stunt, clover phyllody, and potato witches' broom. This paper describes the morphological characteristics of MLO infection, the structure and characteristics of MLO, carriers of MLO, the relationship of MLO in animals, insects, and plants, and prevention and control of MLO with antibiotics. This paper was received for publication on 24 January 1977.

AUTHOR: HAN Ch'eng-yuan [7281 3397 3293]

ORG: None

TITLE: "Proteinase Hydrolysis of Immune Globulin G"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN [PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS] in Chinese No 5, Nov 77 pp 31-35

ABSTRACT: Recent researches indicate that human and rabbit IgG can be decomposed by many types of protein hydrolase with basically similar results. The IgG is mainly decomposed into two parts: the Fab or F(ab') portion, which has the ability to combine with antigen; the other portion is capable of crystallization. Each Fab fragment of the papainase digestion products has only one antigen combination point; therefore, it cannot be combined with antigen to form precipitates visible to the naked eye. The F(ab')₂ fragments of pepsinase digestion can combine with two antigen molecules to form precipitates visible to the naked eye. Digestion of human IgG by papainase is very fast. The IgG molecule begins to decompose into two major fragments of Fc and Fab in ten minutes, while digestion by pepsinase is much slower. Fragments of F(ab')₂ of 5 S begin to appear after as long as six hours. This paper was received for publication in September 1976.

AUTHOR: SHEN Yu-min [3088 3558 3046]

ORG: Institute of Biophysics, Chinese Academy of Sciences

TITLE: "Dynamics of Spermatozoid Genesis of Mammals"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN [PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS] in Chinese No 5, Nov 77 pp 36-45

ABSTRACT: The process of spermatozoid genesis is described in the paper as an extremely complex yet orderly and unconfused process. Studies of such Western authors as Rousen-Runge, Gissel, Leblond, Clermont, Huckins, and Oakberg, etc. are quoted. These studies on the dynamics of spermatozoid genesis are credited for the clarification of the genesis and its regulation and control. In practical application, such as in the study on the interference of spermatozoid process by physical and chemical factors of radiation, male contraceptives, hormones, etc., the results of these studies are claimed to have definite reference value. This paper was received for publication on 20 December 1974.

AUTHOR: CHING Kuo-chung [7234 0948 1813]

ORG: Institute of Biophysics, Chinese Academy of Sciences

TITLE: "Chemical Evolution and the Origin of Life-- A Brief Discussion of Simulation Experiment and Its Place in the Study on the Origin of Life"

SOURCE: Peking SHENG-WU HUA-HSUEH YU SHENG-WU WU-LI CHIN-CHAN [PROGRESS IN BIOCHEMISTRY AND BIOPHYSICS] in Chinese No 5, Nov 77 pp 44-49

ABSTRACT: Studies on the origin of life may be generally divided into two categories: (1) The use of chemistry, especially molecular biology achievements to proceed with artificial synthesis of life for the purpose of explaining the dialectical transformation of non-living substances in the direction of organic bodies. (2) The use of simulation of primordial condition of the earth to clarify the possibility and the necessity of the beginning of life on earth through tracing the historical beginning. The general condition of simulation experiments at the present stage is briefly described but aside from S.W. Fox, names of scientists currently working on the subject are not mentioned. It is the author's opinion that simulated condition can never be the same as the original condition, and without simulation of the process of life itself, the leap from chemical to the living can never be clarified. This is believed to be a common shortcoming of capitalist scholars of the West. Simulation and other forms of study of life itself, beyond the condition which made life possible, will be needed to clarify the origin of life dialectically. This paper was received for publication on 18 May 1976.

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CSO: 4009

CHINESE JOURNAL OF INTERNAL MEDICINE

AUTHOR: WANG Shu-hsien [3769 0647 0752]

ORG: First Hospital, Peking College of Medicine

TITLE: "Intensify Researches on Nephritis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 p 81

ABSTRACT: Being a common and recurrent disease and lacking satisfactory measures for treatment or prevention here or abroad, nephritis demands intensified research in all its aspects for effective control. This paper briefly lists the aspects of pathogenesis, patho-mechanism, immunological implications, pathological changes, localized injury, and treatment with integrated Chinese traditional and Western medicine that are in need of extensive study. Close cooperation of all units concerned with nephritis is urged by the author in order that this disease may be controlled in the near future.

AUTHOR: CH'EN Mei-fang [7115 2734 5364]

ORG: Nephropathy Group, Department of Internal Medicine, Department of Chinese Traditional Medicine, Third People's Hospital, Shanghai Second College of Medicine

TITLE: "Combined Chinese Traditional and Western Treatment in Refractory Nephrotic Syndrome"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 82-86

ABSTRACT: Since the development of kidney biopsy and the application of electron microscope, it has become known that pathological changes in nephrotic syndrome vary a great deal in severity to cause the treatment effects to vary as well. In the past several years, the author and colleagues have treated 93 cases of considerable complications. The experience gained from these cases is introduced. With brief case histories, the experience is discussed in the following aspects: (1) Starting with improving general physical condition when albuminuria does not recede quickly; (2) Correct use of hormones and immuno-suppressants; (3) Management of infections during hormone and immuno-suppressant treatment process; (4) Problem of stubborn edema; (5) Treatment of nephrotic syndrome with concurrent diseases of other origin. Both Western drugs and Chinese traditional drugs were used for treatment in the sample cases given.

AUTHOR: CHUANG Chao-ch'in /8369 2507 0530/
LU K'un /7128 3824/
CH'EN Yen-ch'iu /7115 6267 4428/

ORG: All of Department of Pediatrics, Canton Troop General Hospital, Chinese People's Liberation Army

TITLE: "Preliminary Observation of A Fold Microcirculation of Chronic Nephritis Patients"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 p 86

ABSTRACT: In recent years, it has been discovered that the formation of minute thrombus within renal glomerulus and the impairment of microcirculation have some effect on the condition of nephritis, while the proposal of using anti-coagulants in foreign countries and the use of circulation improving and stasis eliminating technique in China corresponds with the implication of this discovery. For the purpose of clarifying the principle of change in the peripheral microcirculation of nephritis patients, in June 1975, the authors observed the A fold microcirculation of the fingers of 44 nephritis patients, and changes were noticed in majority of these cases. The observational data are analyzed.

AUTHOR: None

ORG: Nephritis Research Laboratory, Department of Internal Medicine, First Hospital, Peking College of Medicine

TITLE: "Evaluation of Therapeutic Effect of Herbal Drugs With the Action of Improving Circulation and Eliminating Stasis in Clinical and Experimental Nephritis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 87-90

ABSTRACT: The use of circulation improving and stasis eliminating Chinese traditional prescriptions for the treatment of nephritis introduced by Shansi Provincial Institute of Chinese Traditional Medicine (HSIN-I-YAO TSA-CHIH No 6, 1975 p 29) has been a relatively new approach and its extension in recent years has also produced some effects. It has been suggested that actions of these drugs include immuno-suppression and promotion of transformation or absorption of hyperplastic changes. For the purpose of studying these effects, 84 cases were observed and animal models studied. The observation confirmed the short term effects of these drugs but the experiment with rabbits did not indicate immuno-suppressant or tissue-absorption effects of these drugs.

AUTHOR: LI Lei-shih /7812 4320 4258/

ORG: Department of Internal Medicine, the 86 Hospital, Chinese People's Liberation Army

TITLE: "Treatment of Latent Glomerulonephritis: An Analysis of 73 Cases"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 91-94

ABSTRACT: Through clinical observation of 73 cases, it is tentatively confirmed that among the four treatment measures of using chloroquinum, Chinese traditional drugs, inflammation and pain relieving drugs, and immuno-suppressant, the effect of immuno-suppressant is the best for the latent stage glomerulonephritis. Details of the treatment processes of all four groups are reported.

AUTHOR: None

ORG: Nephritis Research Laboratory, Department of Internal Medicine, First Hospital, Peking College of Medicine

TITLE: "Significance of the Determination of Fibrinogen/Fibrin Degradation Products in Renal Diseases"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 95-97

ABSTRACT: The laboratory began the work of determining fibrinogen/fibrin degradation products /FDP/ in the blood and the urine of nephritis patients two years ago. It has discovered that the determination of FDP in urine can reflect the nature of the disease to provide a basis for distinguishing renal disease from nephritis and it is also helpful for diagnosing rejection phenomenon in renal transplant. Results of the study are analyzed and reported.

AUTHOR: CH'EN Mei-fang /7115 2734 5364/
CHANG Ch'ing-i /1728 1987 1837/
WANG Hsiang-yu /3769 5046 5038/

ORG: All of Kidney Disease Research Group, Department of Internal Medicine, Third People's Hospital, Shanghai Second College of Medicine; Teaching and Research Group of New Medicine, Shanghai Second College of Medicine

TITLE: "Determination of Selective Albuminuria and Its Clinical Significance"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 98-102

ABSTRACT: Renal glomerulus has a superfiltration function; therefore, the determination of plasma proteins of different molecular weight on urine may indicate the degree of damage of the renal glomerulus. The concept of selectivity in proteinuria was first introduced by Blainey et al. The authors observed the iron transfer protein, the G(IgG), and the M(IgM) of 27 nephrotic patients for the purpose of comparing the distribution of the three types of proteins of different molecular weight and its relationship to drug selection for treatment and prognosis. Results of the experiment are analyzed.

AUTHOR: None

ORG: Shen-yang Troop General Hospital, Chinese People's Liberation Army

TITLE: "Clinical Observation of 20 Cases of Allergic Purpura With Concurrent Nephritis Treated With Integrated Chinese and Western Medical Technique"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 p 102

ABSTRACT: Purpuric nephritis is common among glomerulonephritis patients. In Western medicine, it is considered to be related to an allergic reaction while in Chinese traditional medicine it belongs to the blood-heat type. Aside from purpura, hemoglobinuria and proteinuria were also present in all 20 cases of this group and skin tests indicated hypersensitivity to a number of bacteria and especially to histamine phosphate and Bacillus coli. Aside from desensitization treatments, Chinese traditional drugs were also administered to cool the blood and supplement the kidney. The total effectiveness of the treatment technique was judged to be 75 percent.

AUTHOR: SUN Chien-ch'un /1327 1696 5028/

ORG: EKG Laboratory, Department of Internal Medicine, Naval General Hospital, Chinese People's Liberation Army

TITLE: "Clinical Analysis of 10 Cases of Idiopathic Hypertrophic Subvalvular Aortic Stenosis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 103-107

ABSTRACT: Idiopathic hypertrophic subvalvular aortic stenosis is also called obstructive primary myocarditis in China. In the past, understanding of this disease was not sufficient and it was often neglected or misdiagnosed. It was not until the past decade that this disease was given proper attention. This paper analyzes the symptoms, physical signs, EKG signs, and x-ray observations of 10 typical cases. Pathogenesis and prognosis of this disease are discussed.

AUTHOR: LIU Chieh /0491 3381/
LU Chun-pi /0712 0193 7103/

ORG: LIU of Teaching and Research Group of Pathology, Chekiang University of Medicine; LU of Coronary Disease Laboratory, the Second Hospital, Chekiang University of Medicine

TITLE: "Clinico-Pathological Analysis of 4 Cases of Primary Cardiomyopathy"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 108-110

ABSTRACT: Histories of all four cases are individually reported and analyzed. Before the death of all four patients, the diagnosis had been in error as the findings of post mortem pathological examinations indicated. The analyses demonstrated that the reason for the mistake was primarily a lack of understanding in primary cardiomyopathy. General hypertension, aortic disease or anomalies did not exist but asymmetrical or general hypercardiotrophy was present in all four cases. More post mortem evidences are needed, however, to confirm the allegation that incidence of primary cardiomyopathy with concurrent thrombosis is lower in China than in foreign countries.

AUTHOR: CHANG Hsun /1728 6064/

ORG: Second Department of Internal Medicine, Nanking Troop General Hospital, Chinese People's Liberation Army

TITLE: "Side Effect of Hemodialysis--Imbalance Syndrome"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 p 110

ABSTRACT: The imbalance syndrome is one of the major side-effects of prolonged hemodialysis. The mechanism of its occurrence and the method of its prevention are not yet certain, however. This paper reports one case of anuria and kidney dysfunction of late stage chronic nephritis. In the course of 151 hemodialyses, severe imbalance syndrome (mental confusion, convulsion, and coma) occurred 11 times, and mild imbalance syndrome (headache, vomiting, sleepiness, restlessness, muscular spasm, etc.) occurred 81 times. These reactions occurred mostly at 4-5 hours after the start of dialysis, but the reaction had also occurred 3 hours and 15 minutes after the dialysis had completed. Following an analysis of this case, the author suggests that perhaps among chronic nephritis patients, only those with some residual kidney function, with blood urea nitrogen content not more than 100 mg percent should be selected for hemodialysis, and the duration of dialysis is better be 4 hours.

AUTHOR: None

ORG: Teaching and Research Group of Pathology, Teaching and Research Group of Internal Medicine, and Teaching and Research Group of External Medicine, Kuang-si College of Medicine

TITLE: "Endomyocardial Fibrosis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 111-114

ABSTRACT: Endomyocardial fibrosis occurs mostly in youths. It prevails primarily in Central Africa and has also been reported in Brazil, etc. but not yet in China. Three such cases had been discovered in postmortem in Kuangsi College of Medicine Hospital in 1972-1976 and some similar cases had also been observed clinically. Its understanding had been deficient in the past and consequently, it had been repeatedly mis-diagnosed. Histories of the three post mortem cases are individually reported. Pathological and clinical signs of these cases are discussed in detail. Pathogenetic theories of this disease, including malnutrition, plantain poison, onchocerciasis or Loa loa infection, and autoimmune reaction are discussed as well. Prognosis is not good if internal medical treatment is adopted. Satisfactory effect of surgery is possible, however.

AUTHOR: CHANG Ch'u-wu /1728 2806 2976/
PAI Yu-ju /4101 3768 5423/
YEN K'ai-kuang /7051 0418 0342/

ORG: All of Supersonic Cardiogram Laboratory, Department of Internal Medicine, Sinkiang College of Medicine Hospital

TITLE: "Mitral Prolapse Syndrome: Clinical and Echocardiographic Analysis of 6 Cases"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 115-116

ABSTRACT: Mitral prolapse is also called systolic murmur syndrome. It had often been misdiagnosed as rheumatic mitral incompetence or coronary disease, and was not considered as an individual disease until a decade ago. Among the 600 echocardiographic examinations performed by the authors in the past year, 6 cases of mitral prolapse were discovered. The clinical data, the echocardiographic manifestations, and sample case histories are reported and discussed.

AUTHOR: WANG Chih-jung [3769 0037 1539]

ORG: Department of Internal Medicine, Su-chou Municipal Second People's Hospital

TITLE: "Small Dose of Aramine for Quick Recovery From Intermittent Supraventricular Tachycardia"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 p 114

ABSTRACT: This paper reports a group of 11 patients, suffering from intermittent attacks of tachycardia, with heart beat of 170-220 times/minute during an attack. The condition was verified by EKG in all cases. Three of the group had been treated with neostigminum and cedilanid without improvement. Based upon the information in HSIN-PIEN YAO-WU-HSUEH [NEW PHARMACOPOEIA] with respect to the direct stimulation of vascular smooth muscles action of aramine, the author and colleagues applied it to treat these cases. On the average, a dosage of 1.34 mg of aramine in glucose in intravenous infusion for 35 seconds was sufficient to stop the tachycardia attack. The treatment is not suitable for patients with concurrent hypertension. The treatment procedure is described.

AUTHOR: WANG Kuang-chieh /3769 0342 2638/
T'AO Yueh-to /7118 1971 1122/

ORG: Both of Department of Internal Medicine, First Hospital, Su-chou College of Medicine

TITLE: "Misdiagnosis of Tuberculous Peritonitis in Adults"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 117-119

ABSTRACT: Clinical manifestations of tuberculous peritonitis may be very complex to cause misdiagnosis and delayed treatment. Of the 158 cases treated at the First Hospital between 1961 and 1975, misdiagnosis occurred in 16 cases. In nine, the truth was discovered only through pathological analysis following abdominal exploratory surgery. This paper reports the conditions leading to misdiagnosis, analyzes its causes, and discusses the lessons learned from the 16 cases for the purpose of improving understandings of this disease and reducing the chance of its misdiagnosis.

AUTHOR: LIU Yung-ch'ang /0491 3057 2490/
CHIANG Yu-p'ing /3592 7183 1627/
LU Ch'uan=chen /0712 0278 4176/
LIN Hsiang-t'ung /2651 4382 6639/

ORG: All of Isotope Laboratory, Department of Neurology, Hua-shan Hospital, Shanghai First College of Medicine; Cerebral Circulation Group, Fourth Research Laboratory, Shanghai Institute of Physiology

TITLE: "Clinical Application of Determination of Brain Blood Pool Transit Time (BTT)"

ABSTRACT: Determination of brain blood pool transit time (BTT), which is also called isotope brain blood turnover time, has been regarded as an index for brain circulation and applied clinically. Its significance in the diagnosis and research of diseases of the cerebral vessels has been clearly demonstrated. This paper summarizes the results of clinical BTT observations of 22 healthy persons and 82 cerebral vascular patients. Certain limitations and methodological problems of BTT are briefly discussed.

AUTHOR: LIEN Chien-an [6647 1696 1344]
HUANG Nei-chang [7806 0035 3864]

ORG: Both of Teaching and Research Laboratory of Parasitology, Kirin University of Medicine

TITLE: "Indirect Hemo-Agglutination Test in the Diagnosis of Cysticercosis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 124-127

ABSTRACT: Diagnosis of cysticercosis, especially brain cysticercosis and its distinction from other intracranial diseases, is a problem urgently in need of solution. There have been some studies on the immunological diagnosis of this disease here and abroad. Of the two immunological diagnostic techniques of supplementary body adhesion test and the indirect hemo-agglutination test, the former is wellknown but rather complicated. The positive rate has been reported to vary from 94 to 29.5 percent. The latter has been reported in foreign countries to be time-consuming and therefore not popular. Following experimentations of other forms of tests, the author adopted it in 68 cases of pathologically verified cysticercosis, 49 cases of patients of other diseases, and 112 healthy persons to arrive at an opinion that it is simple, sensitive, and highly specific. Its adoption in early diagnosis of trichinosis is being considered and studied by the authors.

AUTHOR: CH'I T'ai-p'ing [4359 1132 1627]
KAO T'ao [7559 3447]

ORG: Both of Baicalin Research Cooperative Group

TITLE: "Analysis of Treatment of 268 Cases of Recurrent and Chronic Hepatitis With Baicalin"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 p 127

ABSTRACT: The authors used baicalin [a glucoside extract of Scutellaria baicalensis Georg.] to treat 268 cases of recurrent, chronic hepatitis and obtained definite effects in terms of abnormalities in liver function [SGPT, ZnT, and TTT]. With respect to SGPT, there was a recurrence rate of 16.7 percent, six months after the completion of the treatment. The treatment technique and the results are briefly reported.

AUTHOR: SUN Ch'ing-feng [1327 1987 0023]

ORG: Department of Internal Medicine, Fu-shun Petroleum First Plant Workers' Hospital, Liaoning Province

TITLE: "Report of One Case of Intraventricular Three-branch Block in Coronary Patients"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 128-129

ABSTRACT: Intraventricular three-branch block is the important reason leading to complete cardiac block, cessation of heart beat, and Adams-Stokes syndrome. Early diagnosis and treatment of this condition is very important for the prognosis of the patient. Of the 424 EKG examinations carried out for coronary patients, the author and colleagues discovered 8 cases of intraventricular three-branch block. Of the four cases, four types of changes were observed in repeated EKG's in one case, and interpretation of the four signs produced an accurate diagnosis for this case. Clinical data and the four types of EKG signs of the 42-year old male are reported and analyzed.

AUTHOR: None

ORG: Renal Diseases Group, Department of Internal Medicine, First Hospital, Peking College of Medicine

TITLE: "Prolonged Hemodialysis for the Treatment of Chronic Failure of Renal Function"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 p 129

ABSTRACT: In 1975, the hospital began to use prolonged hemodialysis to treat chronic renal failure. A total of 21 cases have thus been treated in 287 hemodialyses. Signs of uremia were present in all these cases. Hemodialysis was performed 1-2 times per week, lasting 5-8 hours each time. In the process, fever reactions occurred 15 times, nausea and vomiting 9 times, high blood pressure 9 times, hard water syndrome 1 time, arrhythmia 2 times, chest pain 2 times, and hypotension once. Following proper management, these reactions did not affect the continuation of hemodialysis in most cases. There was no death in the process of dialysis or within 24 hours following it. Of date, two of these cases have survived more than 2 years. Concurrent heart damage was suspected in the cases of deaths, possibly related to late stage uremia. Further development of integrated Chinese and Western medical treatment and kidney transplant is suggested to reduce the need for dialysis and to improve the treatment effect at the same time.

AUTHOR: LI Lei-shih [7812 4320 4258]

ORG: None

TITLE: "Clinical Classification, Diagnosis, and Treatment of Primary Glomerular Diseases"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 130-135

ABSTRACT: A National Nephritis Symposium was held from the eleventh to the eighteenth of October 1977, under the auspices of the Chinese Medical Association, at a certain Troop Hospital of Chinese People's Liberation Army in Pei-tai-ho. Delegates representing medical, educational, and scientific research units of some provinces, municipalities, and military regiments of the country participated at the symposium. The discussion emphasized problems concerning immunomechanism and classification of nephritis, the diagnosis of glomerular diseases and related laboratory techniques, and their treatment. With respect to treatment, the discussion centered upon problems of treating kidney diseases and chronic nephritic kidney diseases, latent nephritis, understandings in the application of circulation improving and stasis eliminating technique, and kidney failure and hemodialysis. A special section of the paper is devoted to reporting problems relating to integrated Chinese traditional and Western medical treatment of kidney diseases.

AUTHOR: None

ORG: None

TITLE: "Protocol I: Clinical Classification of Primary Glomerular Diseases"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 135-136

ABSTRACT: At the National Nephritis Symposium of October 1977, following discussion, a preliminary resolution concerning a new clinical classification of primary glomerular diseases was adopted to form this paper. The classification formula includes general classification and classification according to Chinese traditional medicine, which are given in separate sections. The former includes diagnostic indices for primary glomerular renal disease (kidney disease for short), primary glomerulonephritis (nephritis for short), acute progressive nephritis, chronic nephritis, latent nephritis, incomplete renal function, uremia, etc. Diagnostic indices of the various types of nephritis under the Chinese traditional medical classification are also given in the second section of the paper.

AUTHOR: None

ORG: None

TITLE: "Protocol II: Opinions on the Treatment of Various Types of Primary Glomerular Diseases"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 136-137

ABSTRACT: At the National Nephritis Symposium of October 1977, opinions concerning the treatment of various types of primary glomerular diseases were offered to constitute the second protocol of the symposium report. For the purpose of discussing treatment techniques, primary glomerular diseases are divided into: (1) Acute nephritis; (2) Acute progressive nephritis; (3) Latent nephritis; (4) Primary glomerular disease (kidney disease for short); (5) chronic nephritic kidney disease; (6) Indices for dialysis techniques in chronic renal failure. The use of Chinese traditional symptomatic treatment techniques and the application of such Western medical techniques as hormones, immuno-suppressants, etc. are integrated in the discussion.

AUTHOR: CHENG Chih-t'ien /6774 5347 3944/

ORG: None

TITLE: "Problems Concerning Gastroscopic Diagnosis of Chronic Gastritis and the Classification of Gastritis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 pp 138-139

ABSTRACT: Gastroscopic examination has a relatively important place in stomach cancer prevention work. In China, the number of units practicing gastroscopic examinations has been increasing in recent years. From these examinations, it was discovered that the incidence of gastritis is high, amounting to 60-70 percent of those receiving the examination. At present, there are no uniform indices and classification of gastritis to cause the exchange of experience in its diagnosis and treatment to be difficult. On 27 April, 1977, the editorial committee of the journal invited the gastroscopy workers of Peking for a symposium, and more than 50 persons representing 24 organizations attended. This paper is the report of the symposium.

AUTHOR: CH'EN Chia-ch'i [6929 1367 7496]

ORG: Artificial Kidney Laboratory, Third People's Hospital, Shanghai Second College of Medicine

TITLE: "Summary of 488 Times of Hemodialysis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 p 140

ABSTRACT: Since 1974, the Third People's Hospital performed slow, intermittent hemodialysis 488 times for 31 patients. Of these, three were acute renal failure, and twenty-eight were chronic cases. Before dialysis, all manifested severe symptoms of uremia and seven of these had received abdominal dialysis. The procedure and the results of the hemodialysis are reported. Side effects of hemodialysis were mostly the imbalance syndrome. There was no death during the dialysis, but twenty-one of the group died after dialysis, mostly (57.1 percent) from infections, which had begun before dialysis.

AUTHOR: CH'EN Hao-chu [7115 3493 3796]

ORG: Department of Internal Medicine, Chung-shan Hospital, Shanghai First College of Medicine

TITLE: "Auscultatory Diagnosis of the Heart: Lecture I"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 141-143

ABSTRACT: In modern medicine, many new and complicated methods and techniques have been developed for the diagnosis of heart diseases, yet auscultatory diagnosis remains important. This is due to the fact that an analysis of the heart sound, murmur, and rhythm heard through the stethoscope can be used to analyze the changes and abnormalities. It is an easy, convenient, and inexpensive method of diagnosis. The various new instruments and results of post mortem analyses of late have also contributed to the improvement of auscultation. This first lecture includes the two chapters of (1) the material foundation of auscultatory diagnosis of the heart; (2) procedures and important items in auscultation of the heart.

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WANG K'ang-p'ing [3076 1660 1627]
CHU Tao-cheng [2612 6670 4453]

ORG: All of First Hospital, Su-chou College of Medicine

TITLE: "EKG Location for Atrioventricular and Intraventricular Conduction Block"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 pp 144-148

ABSTRACT: According to anatomical locations, atrioventricular conduction disturbances may be divided into the atrioventricular node level, the His bundle level and the level below the His bundle branches. Each level is further divided into three degrees according to the severity of the block. Diagnosis with respect to the location of the block, i.e. the level of the block, is a problem of clinical concern and is related to the effectiveness of the treatment. In this discussion, the authors emphasize regular EKG analyses for locating the block. Many sample EKG signs are given to illustrate the techniques.

AUTHOR: MAO Liang [3029 5328]

ORG: Shanghai College of Chinese Traditional Medicine

TITLE: "Urine Protein Electrophoresis in Chronic Nephritis"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH [CHINESE JOURNAL OF INTERNAL MEDICINE] in Chinese No 2, 20 Mar 78 p 154

ABSTRACT: Urine protein electrophoresis has a definite significance in the diagnosis and treatment of kidney diseases. This paper reports a research mainly on the technique of paper electrophoresis. The results of urine protein electrophoresis and the results of kidney function determination--urea elimination rate in chronic nephritis patients are compared. The relationship between urine protein electrophoresis results and kidney function in 234 cases of chronic nephritis is summarized and reported.

AUTHOR: LING Jen-chih /0407 0086 1807/

ORG: Ta-wa County People's Hospital, Liaoning Province

TITLE: "Treatment of Rheumatic Arthritis With Combination of Chlorpromazine and Sodium Salicylate"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 p 158

ABSTRACT: For 55 cases of clinically confirmed typical rheumatic arthritis, the author and colleagues adopted the combined use of chlorpromazine and sodium salicylate as a way of overcoming the side effects of the latter. After one week (30 cases), two weeks (20 cases), and three weeks (5 cases) of treatment, it was found to be effective (reduction of fever and joint swellings and recovery of blood precipitate) for 41 cases. In 14 remaining cases, the symptoms were improved. Sodium salicylate had been used by itself to treat 20 cases previously. Half of the group were unable to continue after the first week due to severe digestive distress. After chlorpromazine was added, the symptoms of the digestive tract either disappeared or improved.

AUTHOR: None

ORG: None

TITLE: "Conference for Exchanging Experience in the Prevention and Treatment of Coronary Diseases with Integrated Chinese Traditional and Western Medicine Called by Academy of Chinese Traditional Medicine"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 p 160

ABSTRACT: A Conference for Exchanging Experience in the Prevention and Treatment of Coronary Diseases with Integrated Chinese Traditional and Western Medicine under the auspices of the Academy of Chinese Traditional Medicine was held in Peking from 23-29 November 1977. Fifty delegates representing 25 provinces, municipalities, autonomous regions, and military units, 12 specially invited delegates, and 39 alternates attended. Of these, 6 delegates were old traditional physicians. The conference received 377 papers; 70 of these were in basic theoretical research. This paper is a brief report of the conference.

AUTHOR: None

ORG: None

TITLE: "National Conference of Chronic Bronchitis Prevention and Treatment Specialty Held in Peking"

SOURCE: Peking CHUNG-HUA NEI-K'O TSA-CHIH /CHINESE JOURNAL OF INTERNAL MEDICINE/ in Chinese No 2, 20 Mar 78 back cover

ABSTRACT: The National Conference of Chronic Bronchitis Prevention and Treatment Specialty was held in Peking from 15 to 25 February 1978. A total of 140 persons responsible for the work of researches in the prevention and treatment of chronic bronchitis in all the provinces, municipalities, and autonomous regions attended the conference. Experiences of the past few years, especially since 1975, in influenza prevention and treatment, pathogenesis, clinology, and pathology of chronic bronchitis, and the basic theoretical studies in related pharmacology were exchanged. Of the more than 300 effective herbal drugs, ninety-two were reported to be in production. In immunological research, four types of immuno-globulin and two types of supplementary body have been purified. The relationship between vegetative nerves and chronic bronchitis has been clarified to provide a theoretical basis for anticholesterol research. Pathological, morphological, and histo-chemical studies were also reported. Following extensive discussion, the conference formulated the Integrated Chinese Traditional and Western Diagnostic Classification and Treatment Principle for Chronic Bronchitis.

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CSO: 4009

CHINESE MEDICAL JOURNAL

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ORG: All of Shanghai Institute of Biology, Chinese Academy of Sciences

TITLE: "Influence of Naloxone On the Analgesic Effect of Electronacupuncture in Monkeys"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 193-195

ABSTRACT: Eight *Macaca mulatta*, weighing 4-8 kg each were used in the experiment. The monkeys were restrained on chairs, with the neck, the hips, and one of the upper limbs in fixed positions and immovable. With some training, when one of the limbs receives an injurious stimulation of a certain intensity, the free limb will make the motion to stop the stimulation. This conditioned reflex is used as the index for pain in the experiment, to study the effect of naloxone on the conditioned reflex to injurious stimulation, and on the analgesic effect of electroacupuncture in near and far segments. Results indicate that the analgesic effect of electroacupuncture may be partially or completely blocked by the morphine-receptor blocking agent naloxone. This paper was received for publication on 23 December 1977.

AUTHOR: None

ORG: Newborn Infant Group, Department of External Medicine, Peking Children's Hospital

TITLE: "Xiphopagotomy: Report of One Case"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 196-198

ABSTRACT: In December 1975, surgery was performed in the department to separate a pair of male conjoined twins who were born on 26 October 1975. Follow-ups to August 1977 found the two boys to be well and able to walk. Surgeries were also performed to repair inguinal hernia for one and abdominal hernia for the other. A mild deformity of hemicentrum of the thoracic vertebra in one boy and dextrocardial deformity in the other were disclosed in separate x-ray pictures. This paper was received for publication on 10 September 1977.

AUTHOR: YANG Wen-chung [2799 2429 1813]

ORG: Sheng-li Road Hospital, Hopei District, Tientsin Municipality

TITLE: "Introducing Two Quick Paraffin Slicing Methods"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 4, 15 Apr 78 p 198

ABSTRACT: Two methods of applying heat to the test tube and applying high temperature and pressure with paraffin to make slides of biopsy specimens quickly. These methods are simple and fast and the results are satisfactory. Since their adoption, biopsy specimens of 60 cases have been examined and a report has always been complete within 30 minutes. Concrete procedures of the two methods are described.

This paper was received for publication on 8 November 1977.

AUTHOR: None

ORG: Department of Pediatrics, Peking Chinese Traditional Medicine Hospital;
Biochemistry Laboratory, Peking Municipal Institute of Chinese Traditional
Medicine

TITLE: "Chian-p'i Powder [Spleen Tonic] in Small Intestinal Absorption Dysfunction (With Observation of Xylose Absorption Test in 210 Cases)"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese
No 4, 15 Apr 78 pp 199-202

ABSTRACT: A health survey of children from 1-5 years of age was conducted in twelve factories and districts from Apr 76 to Mar 77. Of the 708 children examined, incidence of diseases of the respiratory system was found to be high. Xylose absorption test was carried out for 210 children of normal and weak physical condition, selected from the group, to determine the absorption function of the small intestine. Those found to have low absorption function (89 children) were administered orally with the Chinese traditional spleen tonic, Chian-p'i powder. Consequently, in varying degrees, the absorption function of small intestine was improved, incidence of diseases of the respiratory system reduced. Ingredients of Chian-p'i powder are described.

This paper was received for publication on 22 July 1977.

AUTHOR: None

ORG: Department of Pediatrics, Fu-chou Municipal Second Hospital

TITLE: "Polygonum Hydropiper L. in Enteritis and Bacillary Dysentery in Children"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 203-205

ABSTRACT: Since the summer of 1970, the department has treated a large number of children suffering from recurrent enteritis and bacillary dysentery with a decoctum of Polygonum hydropiper L. The whole herb is cooked in water (2 kg to 1,000 ml of water) to produce the decoctum; the dosage is calculated at 7-8 g of raw herb/kg of body weight/day for 5-10 days. Of the cases treated, the clinical data of 471 cases are summarized and reported. The effects were found to be comparable with the control who were treated with antibiotics. An experiment with 5 rabbits was carried out to observe the toxicity of the drug. Toxic reactions to the drug among the group of children treated with the drug were also studied.

This paper was received for publication on 11 February 1977.

AUTHOR: None

ORG: Department of Chinese Traditional Medicine, Peking Children's Hospital

TITLE: "Infant Diarrhea Treated Chiefly According to the Principles of Traditional Chinese Medicine, Wen-shen-pu-p'i Technique"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 206-208

ABSTRACT: From 1970 to 1975, 794 hospitalized children of diarrhea were treated with Chinese traditional medicine only. Those with medium to severe dehydration were given intravenous infusion; antibiotics were not applied. Of the group, the cure rate for the 385 cases of summer diarrhea was 62.2-82.6 percent in these years, and that of the 409 cases of autumn diarrhea was 91.8-95 percent. The clinical data of the 136 cases treated in the summers of 1974 and 1975 are analyzed. Preliminary understandings of treatment of infant diarrhea with Chinese traditional medicine are discussed. Several prescriptions used in the treatment are described.

This paper was received for publication on 12 May 1977.

AUTHOR: None

ORG: Pediatrics Cooperative Group, Fukien Province

TITLE: "Treatment of Diarrhea With Combined Chinese Traditional and Western Medicine in Children and Infants"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 209-213

ABSTRACT: Clinical data of 3,700 cases of diarrhea in children and infants treated with the integrated Chinese traditional and Western medicine technique in the pediatric departments of twelve hospitals in Fukien Province from 1958 to 1976 are analyzed. Effects of the treatment technique are compared with 7 groups of control, treated with one of four Chinese traditional drugs and one group treated with Western medicine alone. The procedure and contents of the integrated Chinese traditional and Western medical technique are described. This paper was received for publication on 6 April 1977.

AUTHOR: None

ORG: Electron Microscopy Laboratory, Szechwan College of Medicine

TITLE: "Electron-microscopy of Leptospirae Icterohemorrhagiae"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 214-215

ABSTRACT: Although electron-microscopic observation data of some forms of leptospirae are available in foreign countries, reports of electron-microscopic observation of the minute structure of this type of spirochetes are rare. The procedure of preparing the specimens and the results of observation are reported. The significance of the morphological and biochemical characteristics of leptospirae is discussed. This paper was received for publication on 7 June 1974.

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ORG: All of Pharmacology Teaching and Research Group, Peking College of Medicine

TITLE: "Pharmacological Study of Tablettae Antiepilepticae: I. Its Effect on the CNS"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH /CHINESE MEDICAL JOURNAL/ in Chinese No 4, 15 Apr 78 pp 216-219

ABSTRACT: As part of efforts of integrated Chinese traditional and Western medical treatment of diseases, a folk method of treating epilepsy with white peper and turnip was discovered. Pharmacological researches proved that white peper is the major ingredient after the folk prescription was clinically proved to be effective. Researches further clarified that the anticonvulsion element is piperine. On the basis of these studies, some piperine derivatives were synthesized by the Pharmaceutical Plant of the college, and the tablet, antiepilep-sirinum, is the final product. Methods and results of experiments with mice and rabbits to determine its anticonvulsion action, its tranquilizing action, its effect on the CNS suppressing action of thiopentalum natricum /pentothal/ and its analgesic action are reported in this installment of the paper. This paper was received for publication on 16 May 1977.

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TITLE: "Determination of Serum Fibrinogen Degradation Products (By Staphylococcus Agglutination Test)"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH /CHINESE MEDICAL JOURNAL/ in Chinese No 4, 15 Apr 78 pp 220-222

ABSTRACT: Although there are several methods of determining fibrin/fibrinogen degradation products (FDP), the Staphylococcal clumping test (SCT) is more sensitive. The authors improved SCT of Alington et al to form the Staphylococcus agglutination test. The theory and the method of this test are described. The test was used to determine the FDP of 60 healthy adults and 107 patients of various diseases. The test results are reported and discussed. This paper was received for publication on 28 December 1972.

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TITLE: "Trichinosis in Hsi-shuang-pan-na and Ta-li, Yunnan Province (A Preliminary Investigation)"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 223-226

ABSTRACT: The local peoples of Hsi-shuang-pan-na and Ta-li have the habit of eating raw meat. Aside from pork, raw bear, wild boar meats may also cause

[continuation of CHUNG-HUA I-HSUEH TSA-CHIH No 4, 1978 pp 223-226]

trichinosis in this region. The clinical symptoms, laboratory tests, and treatment procedures of 166 cases are reported. Diagnoses of 19 cases of the group were verified by muscle biopsy or autopsy. Clinical manifestations are basically the same as related reports of the past. Compared with similar reports of other parts of China, the incubation period of the cases in Hsi-shuang-pan-na is shorter, and the fever, edema, and muscular pain last longer. According to estimate by skin test, this disease is rather common in this area. Propaganda should be earnestly carried out to change the local habit of eating raw meats. This paper was received for publication on 31 December 1975.

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TITLE: "Management of Traumatic Severance of Both Lower Limbs"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH /CHINESE MEDICAL JOURNAL/ in Chinese No 4, 15 Apr 78 pp 227-230

ABSTRACT: In the past decade, there have been seven cases of bilateral traumatic amputation of lower limbs in the general hospital. Replantation was successful for five limbs of four cases of the group. Brief histories of all four cases are given, with one photo depicting bilateral severance of lower limbs, and another depicting successful re-implantation of left foot on the right stump. Management of shock, injuries to internal organs, and other general condition of the patient following a train accident is examined, as six of the seven cases were injuries by the train. Problems related to successful replantation, such as distention of soft tissues, infection of the wounds, necrosis, myelitis, and the healing process of the replanted limb are discussed.

This paper was received for publication on 17 January 1977.

AUTHOR: None

ORG: Anatomy Teaching and Research Group, Ninghsia College of Medicine

TITLE: "100 Cases of Chinese Cerebral Falx and Cerebellar Tentorium"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH /CHINESE MEDICAL JOURNAL/ in Chinese No 4, 15 Apr 78 pp 231-233

ABSTRACT: Following development of modern medicine, more and more conditions leading to increased intracranial pressure have been discovered. In departments of neurology, internal medicine, surgery, and pediatrics, brain hernia has become one of the important causes of death. For the purpose of providing needed clinical reference, skull and brain specimens of 100 adults were observed to determine the types of cerebral falx and cerebellar tentorium and their measurements. Detailed data are presented with drawings.

This paper was received for publication on 27 June 1975.

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TITLE: "Drip-infusion Cholecysto-cholangiography"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 234-236

ABSTRACT: Since 1972, the technique of direct intravenous injection of iodine agent for cholecysto-cholangiography has been changed to the drip infusion technique for the purpose of improving the visualization rate. Reports in related literature do not agree with respect to the dosage and duration of the drip-infusion technique, however. This paper reports the experience with this technique in 167 cases. The iodipamide dosage adopted was 0.2-0.3 g in 250 ml of 5-10 percent glucose/kg of body weight for a drip infusion duration of 90-120 minutes. The advantages of this technique and the side-effects are discussed. This paper was received for publication on 30 September 1974.

AUTHOR: WANG Cheng-min [3769 2973 2404]

ORG: Department of Ear,Nose,Throat, the Eye,Ear,Nose,Throat Hospital of Shanghai First College of Medicine

TITLE: "Fascia Graft Tympanoplasty"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 237-240

ABSTRACT: Fascia graft tympanoplasty is a technique of approaching the tympanum through the external auditory canal to remove diseased tissues, to repair the damaged tympanic membrane with a fascia graft, and to reconstruct the bone structure for the recovery of hearing loss. Since 1972, this technique has been adopted to treat 102 ears in 98 cases. Aside from 6 cases of membrane perforation due to injury, all the remaining cases were after-effects of otitis media. For this group, the rate of healing of the membrane graft was 90.3 percent, and the rate of improvement of hearing was 88.5 percent. This paper was received for publication on 18 August 1976.

AUTHOR: None

ORG: Yang-yuan County Public Health and Epidemic Prevention Station, Hopei Province

TITLE: "Preliminary Experience in Preventing and Treating Endemic Fluorine Disease"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 pp 241-243

ABSTRACT: Endemic fluorine disease is the result of drinking water of an excessively high fluorine content for a prolonged period of time. The symptoms include spotted teeth, pain in the lumbar region and the legs, and skeletal deformation. A survey of this condition in Tung-ching Commune began in 1972. The preliminary efforts were concentrated in Wang-han-chuang Brigade, which contended 335 families of 1,175 persons. Pain in the lumbar region and the legs was discovered in 193 persons, amounting to 18.8 percent. Other symptoms of the bone and the blood were also discovered in various degrees of severity. Water of the local wells and the wells of neighboring villages was analyzed for its fluorine content to study its relationship with the incidence of these diseases. It is the conclusion of the authors that the fluorine content of drinking water should be 0.6 mg/liter with a maximum permissible level of 1.0 mg/liter.

This paper was received for publication on 21 March 1977.

AUTHOR: T'IEH Han [6993 3352]
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ORG: T'IEH of Peking Municipal Hygienic Products Plant; WANG of Wu-wei District Second People's Hospital, Kansu Province

TITLE: "Introducing One Method of Saving Defatted Cotton--Using Core of Sunflower Stalk in the Place of Cotton Balls"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH [CHINESE MEDICAL JOURNAL] in Chinese No 4, 15 Apr 78 p 243

ABSTRACT: The central core of the stem of sunflower is highly absorbent. The authors compared it with plastic foam and cotton and found it to be more absorbent than the former, and less than the latter. When a small piece of the core was sterilized and used in the place of defatted cotton ball for applying disinfectant on the skin before hypodermic or intravenous injection, the result was satisfactory. It proves to be equally absorbent for alcohol, tincture of iodine, red mercury oxide, boric acid solution, furacin solution, or saline water. It was used to apply drugs of external use and the patients said it was not very different from cotton. Its only shortcoming is the fact that it is brittle when it is dry; therefore it should be stored in the disinfectant solution before use.

This paper was received for publication on 5 September 1977.

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TITLE: "An Investigation of Concave Finger Nails in Chinghai Province"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH /CHINESE MEDICAL JOURNAL/ in Chinese No 4, 15 Apr 78 pp 244-245

ABSTRACT: Concave finger nails are a high incidence disease in the plateau region. There is no uniform understanding with respect to this condition, at present. Morphologically, it may be divided into three degrees of severity. In the mild condition, the nails are flat, with vertical or horizontal grooves, which look like wrinkles. In the intermediate stage, the luster is lost, and many indentations and ridges appear. In severe cases, the soft tissues below the nail will crack and bleed and a portion of the nail may fall off. The survey did not reveal any relationship between this disease and the ability to adjust to the high elevation, neither is it related to anemia. Treatment with vitamin B1 and C, iron, and calcium for one to six months produced no effect. When the patient's contact with water is reduced by wearing gloves, etc. different degrees of improvement or even spontaneous healing did occur, however. This paper was received for publication on 38 March 1977.

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ORG: Both of Hunan Provincial Institute of Work Hygiene

TITLE: "Dust and Occupational Lung Cancer"

SOURCE: Peking CHUNG-HUA I-HSUEH TSA-CHIH /CHINESE MEDICAL JOURNAL/ in Chinese No 4, 15 Apr 78 pp 246-249

ABSTRACT: There has been an obvious increase of the incidence of lung cancer in recent years and a great deal of research studies have been carried out on occupational lung cancer. The carcinogenic action of asbestos, certain metals and metallic substances, and radioactive dust particles has been more or less confirmed, but that of silicon dioxide and carbon dust (coal, carbon black, etc.) is less certain. Chinese and foreign /mostly the latter/ studies on the relationship between lung cancer and asbestos, metal dust particles, radioactive dust particles, etc. are reviewed. The authors conclude that the density of the dust particles and the workers' smoking habit are related to the incidence of lung cancer, and dust-proof measures and propaganda to stop cigarette smoking among the workers are necessary in preventing occupational lung cancer. This paper was received for publication on 6 September 1977.

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CSO: 4009

JOURNAL OF KIRIN MEDICAL COLLEGE

AUTHOR: None

ORG: Department of Parasitology, Department of Biology and Department of Dermatology of the 2nd Hospital, Kirin Medical College

TITLE: "Etiology and Prevention of Rice-Field Dermatitis in Kirin Province - A Summary of 19 Years of Work"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 1-10

ABSTRACT: Rice-field dermatitis occurs from June through August with an incidence of 80-100%. Studies over a 10 year period indicated that trematodes of the genus Orientobilharzia were the primary causes of the disease in Kirin Province, while Trichobilharzia were responsible for it in some regions. Species frequently implicated in the disease were O. turkestanica, T. paoi, T. physellae, T. jianensis and T. dayushuensis (sp. nov.). Numerous other trematodes were also found. A survey of research on trematode life history is presented. Various methods have been found for preventing infection, including careful control of feces. The organisms can be killed with sodium pentachlorophenate and ammonia water. Various ointments and preparations can also be applied to the skin. Among the substances that can be applied is 1% solution of chloronitrosalicylamide.

AUTHORS: PAI Kung-mao [4101 0501 2021]
LIU Chao-ming [0491 0340 6900]

ORG: Both of Department of Parasitology, Kirin Medical College

TITLE: "Avian Blood Flukes in Kirin Province. III. A New Species of Sinobilharzia, a New Species and an Unidentified Species of Gigantobilharzia and a New Chinese Record of Denbritobilharzia"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 11-16

ABSTRACT: Various new species of schistosomes were found in Kirin Province in the period from 1961 to 1966. Sinobilharzia heterorchus sp. nov.: Four males were found in the hepatic portal vein of a Numenius madagascariensis specimen on 30 May 1964. A detailed description is provided. No females or ova were found. This organism resembles Ornithobilharzia odhneri and a table comparing the two species is presented. Gigantobilharzia gianguoensis sp. nov.: One male of this species was found in the mesenteric vein of a specimen of Sterna hirundo hirundo on 22 July 1964. No females or ova were found. A full description is presented. The new species resembles G. huronensis and G. adami and a table comparing the three species is presented. Gigantobilharzia

[continuation of CHI-LIN I-K'O TA-HSUEH HSUEH-PAO No 1, 78 pp 11-16]

(unidentified species): One complete male and a fragment of a male were found in the hepatic portal vein of a specimen of Larus ridibundus. A detailed description is presented. The specimen found resembles Gigantobilharzia plectropteri. A table comparing the two species is presented. In addition, 4 specimens of Dendritobilharzia pulverulenta were found in the hepatic blood vessels of various species of ducks, including Anas falcata and A. querquedula, in the period from May 1964 to May 1966. A brief description is presented. Article also includes line drawings of the specimens collected.

AUTHOR: None

ORG: Biochemistry Division, Department of Keshan Disease, Kirin Medical College

TITLE: "Biochemical Research on Myocardial Cell Damage. II. Myocardial Cell Damage in Experimental Animals"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 17-28

ABSTRACT: In the first part of the paper, changes in lactic dehydrogenase (LDH) isologues at the time of myocardial cell damage are summarized and the possibility is raised of using determinations of LDH isoenzymes as early diagnostic indicators of Keshan disease and other myocardial diseases. With the objective of achieving a theoretical explanation of the action of LDH isoenzymes, the authors induced experimental myocardial damage in rats using isopropyl epinephrine, carbon monoxide and nitrates. The development of myocardial cell damage was then studied using techniques of LDH isoenzyme analysis and pathological morphology. It was found that the SLDH isoenzyme spectrum was a highly specific indicator of myocardial damage, that the SLDH isoenzyme spectrum was a relatively sensitive indicator of myocardial cell

[continuation of CHI-LIN I-K'O TA-HSUEH HSUEH-PAO No 1, 78 pp 17-28]

damage and that it could be concluded that the theory of myocardial cell damage is in the process of revision in the face of new findings in this area. Article includes 7 figures and 4 tables.

AUTHOR: None

ORG: Biochemistry Division, Department of Keshan Disease and Cardiopulmonary Diseases Division, Department of Internal Medicine, 2nd Teaching Hospital, Kirin Medical College

TITLE: "Lactic Dehydrogenase Isoenzymograms in Cor Pulmonale"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 29-36

ABSTRACT: A study was made of 35 patients with cor pulmonale hospitalized in the 2nd Teaching Hospital in the winter of 1976 and the spring of 1977. The patients ranged in age from 24 to 73 years. The control group consisted of 30 normal persons 18 to 56 years in age. Blood samples were taken and determinations were made of LSH isoenzymes. Arterial partial oxygen pressure was determined with a gaseous state blood analyzer. The findings were subjected to statistical analysis. The SLDH isoenzymograms in these 35 cases indicated a moderate degree of increase in total LDH activity, with the increase in LDH₃ activity being the most pronounced. There was progressive impairment of LDH₁₋₃. The pathogenesis of cor pulmonale was discussed on the basis of the SLDH enzymograms and oxygen partial pressure analyses. The characteristics of

[continuation of CHI-LIN I-K'O TA-HSUEH HSUEH-PAO No 1, 78 pp 29-36]

chronic anoxic myocardial damage in cor pulmonale were investigated from a biochemical standpoint. Article includes 3 tables and 4 figures.

AUTHOR: None

ORG: Central Research Group, Fourth Teaching Hospital, Kirin Medical College

TITLE: "Hypotensive Action of Raphanus Seeds"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 oo 37-39

ABSTRACT: An extract of Raphanus sativus seeds was made by the water-alcohol method. The preparations were made in concentrations of 400%, 200% and 100% and were sterilized. Dogs, rabbits and cats were used and the experiments were carried out under anesthesia. Studies were made of the effects of the extract on blood pressure, respiration and the electrocardiogram. In addition, acute and subacute toxicity tests were performed. The extract was found to exert a hypotensive effect on anesthetized dogs, cats and rabbits. The effect was long-lasting and stable. The extract was of low toxicity and there were no evident side effects. It has also been used in clinical trials. Article includes 1 table and 2 figures.

AUTHOR: None

ORG: Cor Pulmonale Cooperative Unit, Kirin Province

TITLE: "Treatment of Cor Pulmonale and its Complications - A Summary of Data for a Four-Year Period"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 40-46

ABSTRACT: A summary of data obtained over the four-year period from July 1973 to June 1977 is presented. Detailed discussions are presented on the topics of control of infection, treatment of cardiasthenia, treatment of respiratory asthenia, pulmonary brain disease, cardiac arrhythmia, disturbances in acid-base equilibrium and electrolyte equilibrium, the problem of complicating shock, left ventricle damage, digestive tract hemorrhage, problems in terminal severe chronic cor pulmonale, problems of cor pulmonale complicated by pneumothorax and nursing in cor pulmonale. Article includes 2 tables.

AUTHOR: None

ORG: Department of Internal Medicine, Second Teaching Hospital, Kirin Medical College; Biochemistry Division, Department of Keshan Disease, Kirin Medical College

TITLE: "Disturbances of Acid-Base Equilibrium in Cor Pulmonale - Including an Analysis of Blood Gas and Blood Acid-Base determinations in 120 Cases"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 40-59

ABSTRACT: The subjects were 120 patients, 73 males and 47 females, 21 to 74 years age. All were considered as acute cases. Blood specimens were tested for the following items: pH, standard bicarbonate, actual bicarbonate, buffer bases, base excess, total carbon dioxide, carbon dioxide partial pressure and oxygen partial pressure. 90.8% of the patients were found to be suffering from anoxia of varying degrees. The average value of oxygen partial pressure was 55.7 mmHg and carbon dioxide partial pressure exceeded normal values in 66.6% of the cases. 80% of the patients were found to have disturbances of acid-base equilibrium. The significance of standard bicarbonate, actual bicarbonate, base excess, total carbon dioxide and actual bicarbonate :

[continuation of CHI-LIN I-K'O TA-HSUEH HSUEH-PAO No 1, Mar 78 pp 40-59]

standard bicarbonate in diagnosing disturbances in acid-base equilibrium was discussed. Data were presented concerning mechanisms of pathogenesis, clinical aspects and methods of treatment of disturbances in acid-base equilibrium occurring as complications of cor pulmonale. Article includes 7 tables and 2 figures.

AUTHOR: None

ORG: Cor Pulmonale Group, Department of Internal Medicine, Second Teaching Hospital, Kirin Medical College

TITLE: "A Preliminary Report on Nailfold Microcirculation in Cor Pulmonale During Acute Episodes"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 60-65

ABSTRACT: Studies were made using a Leitz dissecting microscope with magnifications of 100 to 160 times. The observations were made for the most part using the left and right 4th fingers. The patients were allowed to rest for 10 minutes before observations were made. The subjects were in the supine position and the hands and heart were at the same level. The subjects included 20 normal persons, 20 patients with obstructive pulmonary emphysema and 20 patients with acute episodes of cor pulmonale. Classification was on the basis of Gibson's types. In patients with acute episodes of cor pulmonale, there were greater deformations of nailfold microcirculation and flow rate was slower. Flow was often not uniform and exudation of blood was seen. These changes were correlated with clinical progress. Types C to J were most common. Article includes 6 tables and 1 figure.

AUTHOR: None

ORG: Department of Pediatrics and Department of Infectious Diseases, First Teaching Hospital, Kirin Medical College; Serum Department and Epidemic Diseases Department, Ch'ang-ch'un Materia Medica Institute; Ch'ang-ch'un Children's Hospital; Department of Pediatrics, Kirin Province People's Hospital

TITLE: "Diagnosis of Type 3,7 Adenovirus Pneumonia with Immunofluorescence Technique and Observations of Therapeutic Responses with Adenovirus Antiserum"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 66-75

ABSTRACT: A study was made of 937 suspected cases of adenovirus pneumonia in the winter-spring periods of 1973-1974, 1974-1975 and 1975-1976. Of these, 344 cases, or 36.7%, were confirmed to 3,7 adenovirus infections by immunofluorescence technique. Early, rapid diagnosis of adenovirus pneumonia was found to be 78.8% accurate using the immunofluorescence technique. The method is simple and can be used at local level hospitals. Treatment of type 3,7 adenovirus pneumonia with massive dosages of serum was comparatively effective. This treatment was also effective in controlling recurrences when it was combined with antibiotic treatment following infection.

AUTHORS: KUNG Chun-hsiu [0361 4783 4423]
CHENG Li-ju [6774 7787 4588]
LI Shu-fang [2621 3219 5364]

ORG: KUNG and CHENG of the Radiology Department, Tumor Hospital, Kirin Medical College; LI of Radiology Department, Hospital 208

TITLE: "Preliminary Studies of X-Ray Diagnosis of Early Pulmonary Cancer"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 76-86

ABSTRACT: A study was made of 26 cases over the period from 1972 to June 1976. The patients ranged from 41 to 60 years of age. There were 16 males and 2 females with central type pulmonary cancer and 5 males and 3 females with peripheral type pulmonary cancer. Central type pulmonary cancer was indirectly manifested on the early X-ray pictures, with signs of obstructive pneumonia appearing the earliest. These signs may last for 1 to 2 years. Next most frequently seen was simple lobar collapse, which frequently occurred after the obstructive pneumonia. The most frequent manifestations of the peripheral type of pulmonary cancer on the X-ray plates were small hairlike marginal swellings. Article includes tables showing detailed course in 3 cases and 2 figures.

AUTHORS: CHENG Li-ju [6774 7787 4588]
KUNG Chun-hsiao [0361 4783 4423]
CH'EN Ta-yu [7115 1129 6235]

ORG: CHENG and KUNG of the Radiology Department, Tumor Hospital, Kirin Medical College; CH'EN of the Radiology Department, 3rd Hospital

TITLE: "X-Ray Diagnosis of Pulmonary Hamartoma (With a Report on 10 Cases)"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 87-91

ABSTRACT: A study is presented of 10 cases involving X-ray diagnosis of pulmonary hamartoma, 6 of which were examined in the Tumor Hospital and 4 of which were examined in the 3rd Hospital. Confirmation was made in 9 cases that underwent surgery. The swellings appeared on the X-ray plates as round or elliptical dark shadows with smooth, pointed margins. In 50% of the cases, the shadows were more than 4 cm in diameter, with a diameter of 10.5 cm being found in 1 case. Calcification was found in 4 cases. The areas of calcification were in the centers of the swellings. Details of the 10 cases are presented in a table indicating clinical symptoms, X-ray findings, X-ray diagnosis, surgical findings and pathological findings.

AUTHORS: LIU Chung-hsien [0491 1813 7359]
CHAO Ch'u-ching [6392 2806 7234]

ORG: Both of Radiology Department, Second Teaching Hospital, Kirin Medical College

TITLE: "Differential X-Ray Diagnosis of Pulmonary Pneumatocele (Including a Report on 16 Cases)"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 92-94

ABSTRACT: A study was made of 13 males and 3 females with this condition ranging from 3 to 67 years in age. Eleven of the patients were over 40 years of age. Three of the patients suffered from cardiopulmonary disease. The condition developed in 2 cases during the course of pulmonary tuberculosis and in 3 cases during the course of pneumonia. It was concluded that comprehensive consideration of clinical, pathological and chemical test findings is of great importance in differential X-ray diagnosis of pulmonary pneumatocele.

AUTHORS: KUO Hsiao-feng [6753 2556 1496]
LI P'ei-fang [2621 1014 5364]
HOU Chun-i [0186 0689 3015]

ORG: All of Department of Otorhinolaryngology, First Hospital, Kirin Medical College

TITLE: "False Aneurysm of the Nose and Throat Regions"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 95-98

ABSTRACT: A study was made of 4 cases hospitalized in the period 1971-1975. The patients were 2, 4, 11 and 20 years of age. There were 3 cases of infectious false aneurysm of the neck and 1 case of false aneurysm of the sinus caernosus. Two of the former were cured and 1 died. The latter case also died. The principles of early diagnosis and treatment of the condition were discussed on the basis of a review of the literature and of the knowledge gained from the experience of these cases.

AUTHOR: CHAO Ya-shan [6392 0068 1472]

ORG: Department of Surgery, First Teaching Hospital, Kirin Medical College

TITLE: "A Report on Three Cases of Enlarged Breast"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 99-101 and bottom p 10

ABSTRACT: A study was made of 3 cases treated in the period 1962-1977. The first case was that of a 21-year-old, unmarried female worker, the second was that of a 15-year-old unmarried female student and the third was that of a 45-year-old married cadre. The first two cases were treated surgically with substantial improvement occurring. The third case was treated by a combination of traditional Chinese drugs and surgery. There are detailed case presentations and three photographs.

AUTHOR: YEH Wei-fa [5509 4850 3127]

ORG: Department of Internal Medicine, First Teaching Hospital, Kirin Medical College

TITLE: "The Characteristics and Clinical Applications of Lymphocytic Cell Transfer Factor"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 102-109

ABSTRACT: This is a review article on transfer factor based largely on Western literature. It deals with the chemical properties of transfer factor, its immunological characteristics, methods of preparing it, its functions and mechanism of action, the range of its clinical applications, treatment methods, its therapeutic effectiveness and side effects. Some reports of its effects following use in Chinese hospitals are given. When it was used in 69 cases of lung cancer, there was improvement in 29 cases. A remission rate of 50% was reported in 46 cases of leukemia. Survival time was prolonged in 35 cases of primary hepatic carcinoma in which it was used in combination with traditional Chinese drugs. There are 23 Western references and 4 Chinese references.

AUTHOR: HUANG Yuan-hsun [7806 0337 8113]

ORG: Department of Koshan Disease, Kirin Medical College

TITLE: "Pathogenesis of Arrhythmias"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 110-117

ABSTRACT: This is a review article based entirely on Western sources. It deals with abnormalities of excitation, impairment of conduction and reentrant excitation. Article includes 9 figures and 25 references.

AUTHOR: LI Ming-hu [2621 2494 3840]

ORG: Department of Internal Medicine, First Teaching Hospital, Kirin Medical College

TITLE: "Present-Day Treatment of Cardiogenic Shock"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 118-128

ABSTRACT: Etiological conditions are classed in two main categories, myocardial insufficiency and mechanical impairment of the heart. The mechanism of pathogenesis is considered to lie primarily in impairment of microcirculation. A detailed figure diagramming the mechanism of pathogenesis. Clinical observations concerning blood pressure, urine volume, central venous pressure (CVP), blood circulation in skin and mucous membranes, pulse, heart rate and heart rhythm, superficial venous pulse, states of consciousness and emotion and chemical test findings are presented. There is a detailed discussion of methods and aspects of treatment. Article includes 2 figures and 6 tables.

AUTHOR: CHENG Ho [6774 4421]

ORG: Wuhan Municipal Tuberculosis Prevention and Treatment Hospital

TITLE: "Intrathoracic Sarcoidosis"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 129-133

ABSTRACT: This is primarily a review article on intrathoracic sarcoidosis based largely on Western sources. The literature on the etiology of the condition is reviewed together with that on its epidemiology. Tables are presented indicating its incidence in various European and East European countries and Japan as well as its increasing incidence in West Germany in the period from 1959 to 1968. Article includes 2 tables.

AUTHOR: WEI Chia-hu [7279 0857 3840]

ORG: None

TITLE: "Recent Progress in the Roentgenologic Diagnosis of Lung Cancer"

SOURCE: Ch'ang-ch'un CHI-LIN I-K'O TA-HSUEH HSUEH-PAO [JOURNAL OF KIRIN MEDICAL COLLEGE] in Chinese No 1, Mar 78 pp 134-137

ABSTRACT: This is a general article based largely on Japanese and Western literature. Roentgenologic diagnosis of central type and peripheral type lung cancer, chest X-ray techniques for early detection of lung cancer and differential diagnosis of peripheral type lung cancer are discussed. A table illustrating its histopathological differentiation is shown. There is a discussion of the differing types of lung cancer cells and their relationship to roentgenologic findings as well as a discussion of the classification of the clinical periods of lung cancer. Article includes 3 tables.

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RADIO

AUTHOR: KUNG Pin [7895 2430]

ORG: Sinkiang

TITLE: "The Application of Photoeffect in Liquid Level Control"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 pp 1-2

ABSTRACT: A previous article in this journal introduced the method of controlling water level with 3 electrodes (No 10 1976). Water is a conductive and not strongly corrosive liquid. This article explains a method of controlling the level of such liquids as gasoline, diesel oil, hydrochloric acid and sulphuric acid, which are either non-conductive or strongly corrosive, through photoeffect by means of light signals which are transformed into electric signals for the control. The author uses circuit diagrams to show the operation of photo-electric mechanisms in triggering an electromagnetic valve. He also explains that for controlling the water level in a boiler, steam and high temperature may produce electric resistance between electrodes under water, it is more reliable to use also the photoeffect controlling method. He gives a diagram of an automatic water-filling control circuit for boilers.

AUTHOR: SHIH Ping-k'un [4258 3521 0981]

ORG: None

TITLE: "The Miraculous Light Pen"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 p 2

ABSTRACT: The author refers to electronic equipment--the picture display of the light pen shown in pictures on the inside of the front cover of this journal, No 3 1978. It has the appearance of a TV receiver with a keyboard and a pen. The pen is not a common writing tool but has the function of light control. A diagram shows the components inside the pen, and another shows the layout of the display units in a block system. A drawing of the display screen shows a vertical row of geometric figures on its edge. When you point the light pen at any one of the figures and press the corresponding key, the figure will follow the movement of the pen and be "dragged" along to any position on the screen as required. A programmable calculator can work out the best arrangement of a group of figures as desired. A tape can be punched accordingly and used to control the automatic cutting machine. The equipment may be used in shipbuilding, clothes cutting, electric circuits drawing and in many ways. The author also explains briefly the basic working principles of the light pen.

AUTHOR: SHEN Ch'i [3088 3823]

ORG: Shanghai Medical Use Electronic Instruments Factory

TITLE: "On P MOS Circuits against Interference"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 p 3

ABSTRACT: This article is for the exchange of practical experience. The author explains the experience of his factory that sometimes a PMOS integrated circuit shows less resistance against interference than the HTL integrated circuits. According to their observation, the starting and braking of electric devices, the electric arc of a relay and other contacting points, the sparks of electric welding tools and the operation of a silicon controlled equipment have produced a large amount of electromagnetic interference of a few up to scores of volts. To ensure the reliable operation of PMOS circuits, it is necessary to install anti-interference devices in such circuits. It has been found that triggers, particularly digital circuits composed of triggers, are mostly susceptible to interference. Therefore, they have added a RC integral circuit to filter out various interfering waves to every CP terminal, every triggering terminal of monostable or bistable circuits and every input terminal of gate circuits, and ensured the reliable operation of the PMOS digital control equipment. The author explains the method of installing the RC integral circuit with diagrams.

AUTHOR: LIU T'ieh-ch'eng [0491 6993 1004]

ORG: None

TITLE: "Transistor Long Delay Relays
(1) Problems in Designing"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 pp 4-6

ABSTRACT: The author states that the reliability of circuits, the delay time and the accuracy of delay are the three targets to be considered in designing delay relays. He presents the following problems with his explanation: (1) The choice of charge-discharge curve and working voltage of RC circuits. (2) The time constant and the choice of capacitors. (3) The choice of charging and discharging resistor R. (4) The choice and use of charge-type circuits and discharge-type circuits. (5) The use of constant current source. (6) The accuracy of delay time.

AUTHOR: CHOU Kuo-hua [0719 0948 5478]

ORG: None

TITLE: "A Voltage Range Control Tester"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 p 6

ABSTRACT: In an industrial automatic testing system, it is usual to convert the parametric values into voltage values and then quickly determine from the latter whether or not the former are up to the specifications. Sometimes it requires a voltage value higher (or lower) than a specified value; otherwise, it requires the voltage value to remain within a certain specified range. The author presents a "voltage gate" composed of a computing amplifier 5G23B for the test of voltage values. He gives another circuit of the combination of two "voltage gates" for the control of input voltage within a certain range. By connecting relays to such voltage gates, the results of this automatic tester can be used directly as automatic controlling signals.

AUTHOR: None

ORG: This Journal

Title: "Electronics News Briefs"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 p 7

ABSTRACT: This section reports four electronics news briefs, namely: 1) an analyser with ionic selective electrodes developed by the Taihsien Radio Plant, Kiangsu Province; 2) an 8-digital electronic typewriter as an external equipment for electronic digital computers, developed by the Changchow Electronic Instruments Factory; 3) a table-type electronic calculator for bank use, South China Model LX-121, developed by the Shaokuan Radio Plant, Kwangtung Province; and 4) an electronic automatic control device, Model DZK-20, developed by the Soochow Radio Plant.

AUTHOR: TSOU Chia-hsiang [6760 1367 4382]

ORG: Peking Picture Tube Plant

TITLE: "A Short Talk on Color Picture Tubes"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 pp 8-12

ABSTRACT: This article deals mainly with a 3-gun 3-beam color picture tube to explain briefly its structure, working principles and a few principal adjustments. It explains the functions of various components of a color picture tube, including the phosphor screen, the aperture grille and the electron guns. It discusses adjustments for color purity and the focusing of color beams. It also explains the working principle of the single-gun 3-beam color picture tube. Finally the article mentions briefly the latest self converging color picture tube with its special characteristics. A table is given showing the main parameters of commonly used color picture tubes.

AUTHOR: YU Pao-chung [6735 1405 1813]

ORG: None

TITLE: "High-Power Transistors Used in Parallel"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 p 12

ABSTRACT: The author claims that many amateurs are now using high-power transistors of poor quality as line output transistors in TV receivers. As a result, the picture on the screen is often distorted. He explains the cause of such distortions, and suggests to use such transistors in parallel for better results. A circuit diagram is given, showing a line output unit with two 3DD12 transistors connected in parallel.

AUTHOR: CHANG Hsu-chung [1728 1645 0022]

ORG: None

TITLE: "A Preamplifier for TV Receivers"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 pp 13 & 31

ABSTRACT: The author states that after long use a black-white TV receiver with tubes will gradually lose its sensitivity. Its picture becomes darker. He has built a simple preamplifier with fairly good results. A circuit diagram shows the construction of this device employing a hf low-noise transistor CG34D as an amplifier of incoming signals. A drawing of the PC board shows its connections. However, the author points out that this preamplifier will not be useful when the picture tube is ageing.

AUTHOR: None

ORG: The 2241 design group of Peking Radio Plant

TITLE: "The Peony Model 2241 Semiconductor All-Wave Radio Receiver (5)"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 pp 14-17, 32

ABSTRACT: This article is the continuation of a long article of the same title. It gives the following descriptions: 3) The Heart of the Receiver: A drawing of the receiver without its panel shows locations of various units. 4) The Tuning Indication System: A single knob tunes both the AM and FM stations. 5) The Change from AM to FM: The change is effected by pressing a key. 6) The Short Wave 2-9 Drum Wave-Band Switch: It controls the circuits of eight wave bands. 7) The Time Calculator: It calculates quickly the broadcasting hours of stations in foreign countries according to the standard Chinese time. Two full-page drawings and three smaller drawings show the connections of the PC boards of the FM converter, the AM hf unit, the FM i.f. unit, the AM hf switch and the low frequency unit.

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AUTHOR: CHANG Kuo-chung [1728 0948 1813]
T' IEN Wen-fu [3944 2429 3940]

ORG: Peking Ch'un Shu Rectifiers Plant

TITLE: "Characteristics of Home-Made KS-Type Bilateral Controlled Silicons"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 p 18, inside of back cover

ABSTRACT: The article explains that the bilateral controlled silicons are a derivative element of controlled silicon, which is composed of two controlled silicons connected reversely in parallel. The inside of the back cover shows all data of such type controlled silicons. The article explains the specified current and voltage for closed circuits, the gate triggering current and voltage, the critical current drop in reverse, the surging current and the specified P-N knot temperature. It also gives three points for attention in the use of these silicons. A bilateral controlled silicon is used in an a.c. circuit in place of two controlled silicons connected reversely in parallel. The controlling circuit is simplified. Bilateral controlled silicons are now successfully used in switches with no contact points, adjusting lights, controlling temperature, adjusting the speed of and reversing electric motors.

AUTHOR: LUNG Kuang-chu [7893 1684 0367]

ORG: None

TITLE: "Checking and Adjusting Audio-Amplifiers"

SOURCE: Peking WU-HSIEN-TIEN [RADIO] in Chinese No 6, Jun 78 pp 19-22

ABSTRACT: This article is related to rural wired broadcasting networks. All audio-amplifiers should be checked and adjusted periodically to ensure their performance. The author takes two audio-amplifiers in common use at rural wired broadcasting stations, Model TY250-1000 and Model GY2x275, as an example for inspection and adjustment. He first explains some work of preparation before the inspection, and suggests a rational sequence of checking for speed and safety. He describes first the method of checking frequency response with a signal generator. Two tables show data on frequencies of the two amplifiers. Then, he describes the method of checking and adjusting the output power according to the specifications. The article shows a blank Checking Card for recording the results of each inspection. (To be continued)

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END